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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,787	12/08/2003	Ho-Kyoon Chung	6161.0108.US	2371

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EXAMINER	
ARANCIBIA, MAUREEN GRAMAGLIA	
ART UNIT	PAPER NUMBER
1763	

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/728,787	CHUNG ET AL.	
	Examiner	Art Unit	
	Maureen G. Arancibia	1763	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 March 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) *9 and 10* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8 and 11-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 11 and 13 are objected to because of the following informalities: the word "image" is misspelled on Line 2 of each claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 5-8, 13, and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites the limitation "each of the image display devices" in Line 8, and the limitation "all of the image display devices" in Line 9. There is insufficient antecedent basis for this limitation in the claim. Claim 5 recites simply "**an** image display device." Claim 5 has been interpreted to refer to a single image display device. Claims 6-8, 13, and 14 are rejected due to their dependence on Claim 5.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3 and 5-8 rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,391,137 to Matsushima.

In regards to Claim 1, Matsushima teaches a prior art method of manufacturing a thin flat panel display (Figure 12), comprising: preparing an etchable upper substrate 2 and an etchable lower substrate 1; forming image display devices (Column 1, Lines 45-49) on an inner surface of the lower substrate, and isolating them within device divisions 6; combining the upper and lower substrates, such that the image display means are *individually sealed up* by sealing materials 3 (Column 1, Lines 50-54 and 64-67; Figure 12); etching the outer surfaces of the upper and lower substrates (Column 2, Lines 15-20); and cutting the combined upper and lower substrates into individual image display units (Column 3, Lines 1-5). Each of the image display devices are surrounded by an inner sealant 3, and all of the image display devices and the inner sealant are surrounded by an outer sealant (unetchable protection film) 4. (Figure 12; Column 1, Lines 54-56)

In regards to Claim 2, the upper and lower substrates 1, 2, are formed of glass. (Column 1, Line 45)

In regards to Claim 3, the combining steps comprises attaching an unetchable protection film 4 to all of the lateral sides of the combined upper and lower substrates. (Figure 12; Column 1, Lines 54-56)

In regards to Claim 5, Matsushima teaches a method of manufacturing a thin flat panel display, comprising: preparing an etchable upper substrate 101 and an etchable lower substrate 100; forming image display device 102 on the lower substrate; combining the upper and lower substrates so that the image display means is sealed up by sealant 105; and etching the outer surfaces of the substrates. (Column 8, Lines 32-

36). The image display device is surrounded by an inner sealant 105 and an outer sealant (unetchable protection film) 203. (Figure 4; Column 8, Lines 46-50)

In regards to Claim 6, the substrates are formed of glass. (Column 7, Lines 49-50)

In regards to Claim 7, an unetchable protection film 203 is attached to all of the lateral sides of the combined upper and lower substrates. (Figure 4; Column 8, Lines 46-50)

In regards to Claim 8, each of the substrates is etched to each have a thickness of about 0.3 to 0.7 mm. (Column 9, Lines 1-3)

In regards to Claim 11, the inner sealant 3 completely surrounds each of the image display devices. The seal is made continuous by filling injection hole 3a. (Figure 12; Column 1, Lines 50-54 and 64-67; Column 3, Lines 6-10)

In regards to Claim 13, the inner sealant 105 completely surrounds each of the image display devices. The seal is made continuous by portion 107. (Figure 4; Column 8, Lines 18-22)

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsushima.

The prior art method taught by Matsushima was discussed above.

Matsushima does not expressly disclose that the prior art method can be used to etch the substrates to each have a thickness of at most 0.5 mm.

However, the method taught by Matsushima as discussed in regards to Claim 8 teaches that each of the substrates 100, 101, is etched to each have a thickness of about 0.3 to 0.7 mm. (Column 9, Lines 1-3)

It would have been obvious to one of ordinary skill in the art to modify the prior art method disclosed by Matsushima to etch the substrates 1, 2, to each have a thickness of at most 0.5 mm. The motivation for doing so, as taught by Matsushima (Column 1, Lines 23), would have been to make a lightweight display device.

8. Claims 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsushima in view of U.S. Patent 6,908,638 to Ueda et al.

The teachings of Matsushima were discussed above.

Matsushima does not expressly teach that the image display devices are *organic* EL display devices.

Ueda et al. teaches that display devices can be organic EL display devices. (Column 1, Lines 15-26; Column 2, Lines 10-15)

It would have been obvious to one of ordinary skill in the art to modify the methods taught by Matsushima to be performed on organic EL display devices. The motivation for making such a modification, as taught by Ueda et al. (Column 2, Lines 10-15), would have been to obtain thin display devices with stable luminescence characteristics.

Response to Arguments

9. Applicant's arguments filed 03/14/2005 have been fully considered but they are not persuasive.

In regards to Applicant's argument that Matsushima does not teach that the display devices are individually sealed up: while Matsushima does teach an injection hole 3a in sealant 3, this hole is sealed after the liquid crystal is injected. (Column 3, Lines 6-10) Moreover, Matsushima teaches that preferably a liquid crystal is injected via an injection hole 106 in sealant 105, and then sealed by sealant 107 before the etching takes place. (Column 6, Lines 50-60; Figure 4)

The Examiner also argues that the claim does not require that the liquid crystal be injected and the injection holes sealed before the etching takes place. It has been held that it is not proper to read a specific order of steps into method claims. See *Altiris Inc. v.Symantec Corp.*, 318 F.3d 1363, 1371, 65 USPQ2d 1865, 1869-70 (Fed. Cir. 2003). It has also been held that the transposition of process steps or the splitting of one step into two, where the processes are substantially identical or equivalent in terms of function, manner and result, was held to be not patentably distinguish the processes. *Ex parte Rubin,* 128 USPQ 440 (Bd. Pat. App. 1959). See also MPEP 2111.01.

In regards to Applicant's argument that Matsushima does not teach cutting the substrates, the Examiner disagrees. The words of the claim must be given their plain meaning unless applicant has provided a clear definition in the specification. *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989). See also MPEP 2111.01. The Examiner refers to the definition of "cut" from The American Heritage Dictionary of

the English Language, obtained from http://www.xreferplus.com on 06/24/2005. As is clear from the second listed definition, "to cut" can mean "to separate." Matsushima specifically teaches that the image display devices are separated or divided. (Column 3, Lines 1-5; Column 9, Lines 62-64) One of ordinary skill in the art would interpret this as a form of cutting the substrates apart.

Conclusion

10. Applicant's amendment necessitated any new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maureen G. Arancibia whose telephone number is (571) 272-1219. The examiner can normally be reached on core hours of 10-5, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on (571) 272-1435. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Maureen G. Arancibia
Patent Examiner, AU 1763

PARVIZ HASSANZADEH
SUPERVISORY PATENT EXAMINER